

processor (DSP), said continuous speech recognition ^{LAB}
engine utilizes tokens of raw acoustic signals
representing utterances or words and matches these
against a set of models and then relies upon likelihood
to select a most likely model to decode signals for
interpretation;

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- c.) a programmable microprocessor interfaced with said
speech recognition DSP;
 - d.) sufficient programming and circuitry contained within
said programmable microprocessor to provide for voice
activation and voice recognition and response to
provide item location to a user;
 - e.) voice input means connected to said speech recognition
DSP;
 - f.) memory storage means connected to said programmable
microprocessor for storage of (operational inputs,
control inputs, (voice recognition vocabulary for
storage of command match) and execute functions;
 - g.) at least one user feedback unit and connection from
said programmable microprocessor to said at least one
user feedback unit, said at least one user feedback
unit adapted to provide feedback selected from the
group consisting of audio feedback, visual feedback and
combinations thereof, to a user in response to an item
location query.

12. The system of claim 11 wherein said user feedback unit includes visual display means for viewing visual feedback in the form of text, or map or a combination thereof.

13. The system of claim 11 wherein said user feedback unit includes sufficient hardware and software to provide audio feedback to a user in response to recognizable voice input.

14. The system of claim 11 wherein said memory storage means further includes flash ROM storage and provides for remote diagnostics and system programming.

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15. The system of claim 11 wherein said voice input means includes a microphone.

16. The system of claim 11 which further includes a secured manual control panel for input and management of item and location data into said system.

17. The system of claim 16 wherein said manual control panel further contains a keypad and menu for operation and programming options, a microphone, a screen for input and feedback display.

18. The system of claim 11 which additional components further includes an audio feedback component which includes audio feedback hardware and software adapter to audibly respond to

recognizable voice input, including digital-to-analog conversion and an output speaker.

19. The system of claim 11 wherein said DSP includes a continuous speech recognition engine having a continuous speech signal recognizer and a continuous speech signal interpreter.

20. The system of claim 11 wherein said programming and circuitry within said programmable microprocessor includes embedded, voice driven interface for control of operational instructions, system locator function operations, and option and default functions.

21. The system of claim 11 wherein said response to provide item location to a user includes aisle location.

22. The system of claim 11 wherein said response to provide item location to a user includes shelf location.

23. The system of claim 11 wherein said response to provide item location to a user includes aisle and shelf location.

24. The system of claim 11 wherein said response to provide item location to a user includes bin number.

25. The system of claim 11 wherein said response to provide item

location to a user includes row and slot location.

26. The system of claim 15 wherein said microphone is selected from the group consisting of a receiver handset, headset, and built-in microphone.

27. The system of claim 11 wherein said support structure is a portable support structure.

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cont 28. The system of claim 11 wherein said speech recognition engine uses Hidden Markov Models for its continuous speech recognition engine.

29. The system of claim 16 wherein said speech recognition engine uses Hidden Markov Models for its continuous speech recognition engine.

30. The system of claim 18 wherein said speech recognition engine uses Hidden Markov Models for its continuous speech recognition engine. --